AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph bridging pages 1 and 2 with the following:

In this write-once-read-many disk in which writing can be made only once, recorded/unrecorded area management is important for the below reason. Generally, the write-once-read-many disk is so designed as to employ an organic coloring matter as its recording film. In the write-once-read-many disk, information reading is performed such ~~that:~~ that upon laser irradiation, heat is generated by absorbed light thereby plastic deformation of substrate is caused in a portion irradiated with laser ~~light; as~~ light. As a result, the reflectivity of the deformed portion becomes lower than an undeformed ~~portion;~~ ~~the~~ portion. The information reading is made by using the difference of reflectivity. In the write-once-read-many disk on which recording can be made once, once the substrate is deformed by recording, it cannot be fixed again, thus management of recorded area and unrecorded area is important.

Please replace the first full paragraph on page 2 with the following:

In accordance with increment in the capacity of optical disk, a recordable data amount is increased. In particular, optical disks specified for a personal computer ~~has~~ have various sizes of files to be treated. Consequently, the recording area management is further complicated. JP-A No. 119127/1994 (pages 2 and 3, Figs. 1 and 2) discloses a solution of the problem.

Please replace the paragraph bridging pages 2 and 3 with the following:

In the optical disk, its area management table should be required to be well structured ~~because:~~ because when the disk capacity is increased, a huge number of areas must be managed, leading to a large capacity required for the management ~~table; especially~~ table. Especially in a write-once recording medium, the consumption of management area is a ~~problem; further~~ problem. Further as management information is important, high reliability is required; and the table structure for area management has an influence on reading speed and reliability. The approach disclosed in JP-A No. 119127/1994, however, does not disclose any particular structure of area management table.

Please replace the second full paragraph on page 3 with the following:

One aspect of the invention resides in an information recording method in which information corresponding to a recorded area position of the recording medium is recorded on the recording ~~medium,~~ medium; and when updated, information is newly recorded on the recording medium at a predetermined timing.

Please replace the paragraph bridging pages 3 and 4 with the following:

Another aspect of the invention resides in a recording apparatus, having a pickup, a signal processing circuit to perform signal processing accompanying recording and an interface for data input/output, for recording data on a write-once-read many recording ~~medium, wherein the~~ medium. The recording apparatus is configured such that: information corresponding to a recorded area position of the recording medium is read from the recording medium and stored onto a nonvolatile memory; and that if the information corresponding to the recorded area position is updated, an update flag is set in the

nonvolatile memory, the information corresponding to the recorded area position is recorded on the recording medium at predetermined timing, and the update flag is reset upon completion of recording.

Please replace the paragraph bridging pages 6 and 7 with the following:

Fig. 23 is an example of the management ~~table~~ table according to another embodiment of the present invention.

Please replace the first full paragraph on page 7 with the following:

Hereinbelow, ~~a~~ preferred ~~embodiment~~ embodiments ~~of the present invention~~ will be described in accordance with the drawings.

Please replace the paragraph bridging pages 7 and 8 with the following:

Fig. 2 illustrates recorded/unrecorded areas and the contents of a management table thereof according to an embodiment of the present invention. The figure shows recording areas on the disk among which hatched areas 1-in-a-circle to 3-in-a-circle are recorded ~~area~~ areas where printing has been made. In this example, the address number assigned on the disk increases from the left side to the right side of the figure, and upon data writing, recording proceeds along an arrow direction. The recorded areas 1-in-a-circle to 3-in-a-circle are positioned with unrecorded areas therebetween. "SRA(*)" and "LRA(*)" denote addresses on the disk. In the recorded area 1-in-a-circle, data is recorded from address SRA (1) to address LRA (1). In the recorded area 2-in-a-circle, data is recorded from address

SRA (2) to address LRA (2). In the recorded area 3-in-a-circle, data is recorded from address SRA (3) to address LRA (3).

Please replace the first full paragraph on page 10 with the following:

Fig. 4 illustrates a status where recording is newly made in an area (k) in addition to areas (m) and (m+1) . When data is recorded in the area (k), if recording is made at an address adjacent to the area (m), i.e., the addresses LRA (m) and SRA (k) are continuous addresses, the recording area is a continuous m + k area and seemingly the address LRA (m) has moved to LRA (m)'. At this time, the start address SRA (k) of the area (k) is not added to the recorded/unrecorded area management table, but the LRA (m) is changed to LRA (m)' as an area corresponding to the m + k area. Note that in the above description, the recorded/unrecorded area management table has an area column for the sake of explanation, however, the table does not necessarily ~~has~~ have the area column as long as it enables discrimination between recorded and unrecorded areas. The information on an area size can be obtained by writing as LRA(*) - SRA(*).

Please replace the paragraph bridging pages 11 and 12 with the following:

Fig. 6 illustrates a status where recording is newly made in an area (j+1) in addition to the areas (m), (j) and (m+1). In this example, when data is recorded in the area (j+1), the data is written from a start address SRA (j+1) immediately before the area j + (m+1). That is, the addresses LRA (m) and SRA (j+1) are continuous addresses, and if addresses LRA (j+1) and SRA (j+1) become continuous addresses as a result of recording, the recorded area becomes a continuous area m + (j+1) + j +(m+1). At this time, the start address SRA (j+1)

of the recorded area (j) is not newly added to the recorded/unrecorded area management table, but the address SRA (m) is used in correspondence with the area m + (j+1) + j +(m+1), and an address LRA (m+1) is used as an end address. As the previously ~~2~~ separated areas become ~~1~~ one continuous area, ~~present unnecessary~~ area address information that is no longer necessary is deleted from the management table.

Please replace the first full paragraph on page 12 with the following:

Fig. 8 illustrates an example where a data recording area and a recorded/unrecorded area management table are recorded on a write-once-read-many optical disk. A write-once-read-many optical disk 800 has a management area 802 for recording management information and a data recording area for recording user data. When data is recorded in the data area, it is recorded as indicated with numeral 801, and the recorded/unrecorded area management table is recorded in a predetermined position of the management area 802 at predetermined timing as indicated with numeral 803. To ensure reliability, the management table may be repeatedly recorded in other areas in the management area 802, or the management area may be provided further at another position on the disk 800. If the management area becomes full, a part of the data area may be used as a management area.

Please replace the paragraph bridging pages 13-15 with the following paragraphs:

The host I/F 701 issues a data input/output request from a PC or the like to designate a disk address for recording data in a predetermined area or to read data from a predetermined address. The input-output I/F 703 receives data for recording, outputs reproduced data, or inputs/outputs a command for control of data input/output. Upon

recording, the signal processing circuit 704 adds error correction code to data in accordance with a recording format or performs modulation to thereby ~~performs~~ perform the encode processing. Upon reproduction, the signal processing circuit 704 performs decode ~~processing~~ processing, such as demodulation and error correction. Upon signal processing, the buffer 705 may be used for temporarily storing data.

_____Data is recorded by an optical pickup (not shown), and recorded/unrecorded areas exist on the disk 706. In a case where data is recorded, if recording regulation to perform recording from the inner circumferential position is set, the mixed recorded and unrecorded areas do not exist. Only using information indicating a final address of recorded area, it can be easily found that the inner side is a recorded area and the outer side is an unrecorded area. However, such regulation may limit operability. For example, in a rewritable optical disk where overwriting can be made plural times, if unnecessary data are deleted while necessary data are left, recordable areas are distributed at random.

_____In a case where this system control is applied to management of the write-once-read-many disk, commonality of the system control can be achieved to a certain level, and the control can be simplified. Accordingly, even in the case of write-once-read-many optical disk, random recording and reproduction can be enabled. In this case, as management of recorded/unrecorded areas is important, the management must be improved. ~~In discrimination of~~ Discriminating recorded/unrecorded ~~area~~ areas by detecting ~~of~~ over the whole disk ~~area, it~~ area takes much time. Accordingly, the above-described recorded/unrecorded area management table is employed for recorded/unrecorded area discrimination without detection of the whole disk area each time.

_____Note that in a case where the recording is made in all random areas, as the size of the recorded/unrecorded area management table greatly increases, area division to a predetermined number is allowed, and when the number of divided areas becomes the predetermined number, recording is made in a continuous area. The host I/F 701 designates a logical address allocated to a user data area upon recording of data on a recording medium. When area division has been made to the predetermined number, the host I/F designates a continuous address. Otherwise, it may be arranged such that when the number of divided areas has become the predetermined number, physical addresses are converted in the recording/reproduction apparatus 702 for recording in a continuous area, from a logical address designated from the host I/F, thereby the number of divided areas does not exceed the predetermined number.

Please replace the paragraph bridging pages 28 and 29 with the following:

As described above, according to the present invention, upon recording of data on a write-once-read-many disk, recorded/unrecorded areas can be ~~detected~~ determined without detection of the whole disk area, and time for management can be reduced. Further, as the recorded/unrecorded area management table is stored on a nonvolatile memory and a flag indicating that updated information has been recorded on the disk is added, even if an abnormality such as power-off has occurred, it can be determined that the recorded/unrecorded area management table recorded on the disk is the proper table. Further, the information similar to the flag can be provided by causing an error in a particular position by overwriting on recorded data.

Please replace the paragraph bridging pages 29 and 30 with the following:

In the case of "type 1", recording is made in a new recording area without contact with a recorded area. In the case of "type 2", recording is made in a new recording area with a right end as the end of recording is in contact with a recorded area. In the case ~~of~~ of "type 3", recording is made in a new recording area with a left end as the start of the recording that is in contact with a recorded area. In the case of "type 4", recording is made in new recording areas holding a recorded area therebetween.